12-18-06

Attorney Docket No. 57070-8021.US00

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: YUAN et al.

APPLICATION No.: 10/591,358

FILED: August 31, 2006

FOR: TRIPTOLIDE DERIVATIVES FOR

MDULATION OF APOPTOSIS AND

IMMUNOSUPPRESSION

EXAMINER: To be Assigned

ART UNIT: 1625

Conf. No: 9546

Information Disclosure Statement Within Three Months of Application Filing or Before First Action – 37 C.F.R. § 1.97(b)

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

1. Timing of Submission

This information disclosure is being filed within three months of the filing date of this application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever occurs last (37 C.F.R. § 1.97(b)). The references listed on the enclosed Form PTO-1449 (modified) may be material to the examination of this application; the Examiner is requested to make them of record in the application.

2. Cited Information

- Copies of references 1-8 are issued patent(s) and published application(s) and are not included (see C.F.R. § 1.98(a)(2)(i)).

3. Effect of Information Disclosure Statement (37 C.F.R. § 1.97(h))

This Information Disclosure Statement is not to be construed as a representation that: (i) a search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the cited information is, or is considered to be, material to patentability. In addition, applicant does not admit that any enclosed item of information constitutes prior

art to the subject invention and specifically reserves the right to demonstrate that any such reference is not prior art.

4. Fee Payment

No fees are believed due because this Information Disclosure Statement is being filed before the mailing date of the first Office Action.

However, should the Commissioner determine that fees are due in order for this Information Disclosure Statement to be considered, the Commissioner is hereby authorized to charge such fees to Deposit Account No. 50-2207.

5. Patent Term Adjustment (37 C.F.R. § 1.704(d))

The undersigned states that each item of information submitted herewith was cited in a communication from a foreign patent office in a counterpart application and that this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this statement. 37 C.F.R. § 1.704(d).

Respectfully submitted, Perkins Coie LLP

Date: December 14 2000

Brian S. Beyer/

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Form PTO-1449 (Modified) (Use several sheets if necessary)

of

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COMPLETE IF KNOWN		
Application Number	10/591,358	
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First Named Inventor	Yuan et al.	
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Attorney Docket No.	57070-8021.US00	

Examiner Initials						DOCUMENTS					
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/N.C	<u>;1</u> /.	4,005,108 Kupchai		n <i>et al</i> .	7/87				1		
	2.	5,294,443		Lipsky <i>et al.</i>		3/94	3/94			1	
	3.	5,663	,335	Α	Qi et al.		9/97				1
	4.	5,962	,516	Α	Qi et al.		10/99				1
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	15. Anderson et al., "Synthesis, Evaluation of Chemical Reactivity, and										
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	6,7-bis(hydroxymethyl)-2,3-dihydro-1 <i>H</i> -pyrrolizine Bis(2-										
		propylcarbamate) and 2-Acyloxy Derivatives as Potential Water-									
	16	Soluble Prodrugs ¹ ", <i>J. Med. Chem.</i> , <u>26</u> :1333-1338 (1983). de Groot Franciscus M. H. <i>et al.</i> , "Synthesis and Biological Evaluation									
/N.C	ე./p.										
		of 2'-Carbamate-Linked and 2'-Carbonate-Linked Prodrugs of Paclitaxel: Selective Activation by the Tumor-Associated Protease									
		Plasmin", <i>J. Med. Chem.</i> , <u>43</u> :3093-3102 (2000).									

EXAMINER	/Nizal Chandrakumar/	DATE CONSIDERED
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 Dittert, L.W. et al., "Acetaminophen Prodrugs I Synthesis, Physicochemical Properties, and Analgesic Activity", Journal of Pharmaceutical Sciences, 57(5):774-780 (1968). 18. Dittert, L.W. et al., "Acetaminophen Prodrugs II Effect of Structure and Enzyme Source on Enzymatic and Nonenzymatic Hydrolysis of Carbonate Esters," J. of Pharm. Sciences, 57(5):780-783 (1968). 19. Hansen et al., "Carbamate Ester Prodrus of Dopaminergic Compounds: Synthesis, Stability, and Bioconversion", Journal of Pharmaceutical Sciences, 80(8):793-798 (1991). 20. Hansen et al., "Ketobemidone prodrugs for buccal delivery", Acta Pharm. Nord., 3(2):77-82 (1991). 21. Huang et al., "Hydrolysis of Carbonates, Thiocarbonates, Carbamates, and Carboxylic Esters of α-Naphthol, β-Naphthol, and p-Nitrophenol by Human, Rat, and Mouse Liver Carboxylesterases", Pharmaceutical Research, 10(5):639-648 (1993). 22. Kahns et al., "Prodrugs of Peptides. 18. Synthesis and Evaluation of Various Esters of Desmopressin (dDAVP), Pharmaceutical Research, 10(1):68-74 (1993). 23. Nassar et al., "Effects of Structural Variations on the Rates of Enzymatic and Nonenzymatic Hydrolysis of Carbonate and Carbamate Esters", Journal of Pharmaceutical Sciences, 81(3):295-298 (1992). 24. Savolainen et al., "Synthesis and in vitrolin vivo evaluation of novel oral N-alkyl- and N,N-dialkyl-carbamate esters of entacapone," Life Sciences, 67:205-216 (2000). 25. Tunek et al., "Hydrolysis of ³H-Bambuterol, A Carbamate Prodrug of Terbutaline, in Blood from Humans and Laboratory Animals In Vitro", Biochemical Pharmacology, 37(20):3867-3876 (1988). 26. Weibel et al., "Macromolecular prodrugs IXX. Kinetics of hydrolysis of benzyl dextran carbonate ester conjugates in aqueous buffer solutions and human plasma", Acta Pharm. Nord., 3(3):159-162 (1991). 27. Yang et al., Tetrahedron Letters, 38(39):6865-6868 (1997). 				
 18. Dittert, L.W. et al., "Acetaminophen Prodrugs II Effect of Structure and Enzyme Source on Enzymatic and Nonenzymatic Hydrolysis of Carbonate Esters," J. of Pharm. Sciences, 57(5):780-783 (1968). 19. Hansen et al., "Carbamate Ester Prodrus of Dopaminergic Compounds: Synthesis, Stability, and Bioconversion", Journal of Pharmaceutical Sciences, 80(8):793-798 (1991). 20. Hansen et al., "Ketobemidone prodrugs for buccal delivery", Acta Pharm. Nord., 3(2):77-82 (1991). 21. Huang et al., "Hydrolysis of Carbonates, Thiocarbonates, Carbamates, and Carboxylic Esters of α-Naphthol, β-Naphthol, and p-Nitrophenol by Human, Rat, and Mouse Liver Carboxylesterases", Pharmaceutical Research, 10(5):639-648 (1993). 22. Kahns et al., "Prodrugs of Peptides. 18. Synthesis and Evaluation of Various Esters of Desmopressin (dDAVP), Pharmaceutical Research, 10(1):68-74 (1993). 23. Nassar et al., "Effects of Structural Variations on the Rates of Enzymatic and Nonenzymatic Hydrolysis of Carbonate and Carbamate Esters", Journal of Pharmaceutical Sciences, 81(3):295-298 (1992). 24. Savolainen et al., "Synthesis and in vitrolin vivo evaluation of novel oral N-alkyl- and N,N-dialkyl-carbamate esters of entacapone," Life Sciences, 67:205-216 (2000). 25. Tunek et al., "Hydrolysis of 3H-Bambuterol, A Carbamate Prodrug of Terbutaline, in Blood from Humans and Laboratory Animals In Vitro", Biochemical Pharmacology, 37(20):3867-3876 (1988). 26. Weibel et al., "Macromolecular prodrugs IXX. Kinetics of hydrolysis of benzyl dextran carbonate ester conjugates in aqueous buffer solutions and human plasma", Acta Pharm. Nord., 3(3):159-162 (1991). 27. Yang et al., Tetrahedron Letters, 38(39):6865-6868 (1997). 	Юссососос	1.C./	Physicochemical Properties, and Analgesic Activity", Journal of	
Compounds: Synthesis, Stability, and Bioconversion", <i>Journal of Pharmaceutical Sciences</i> , 80(8):793-798 (1991). 20. Hansen et al., "Ketobemidone prodrugs for buccal delivery", <i>Acta Pharm. Nord.</i> , 3(2):77-82 (1991). 21. Huang et al., "Hydrolysis of Carbonates, Thiocarbonates, Carbamates, and Carboxylic Esters of α-Naphthol, β-Naphthol, and ρ-Nitrophenol by Human, Rat, and Mouse Liver Carboxylesterases", <i>Pharmaceutical Research</i> , 10(5):639-648 (1993). 22. Kahns et al., "Prodrugs of Peptides. 18. Synthesis and Evaluation of Various Esters of Desmopressin (dDAVP), <i>Pharmaceutical Research</i> , 10(1):68-74 (1993). 23. Nassar et al., "Effects of Structural Variations on the Rates of Enzymatic and Nonenzymatic Hydrolysis of Carbonate and Carbamate Esters", <i>Journal of Pharmaceutical Sciences</i> , 81(3):295-298 (1992). 24. Savolainen et al., "Synthesis and <i>in vitrolin vivo</i> evaluation of novel oral <i>N</i> -alkyl- and <i>N</i> , <i>N</i> -dialkyl-carbamate esters of entacapone," <i>Life Sciences</i> , 67:205-216 (2000). 25. Tunek et al., "Hydrolysis of ³ H-Bambuterol, A Carbamate Prodrug of Terbutaline, in Blood from Humans and Laboratory Animals <i>In Vitro</i> ", <i>Biochemical Pharmacology</i> , 37(20):3867-3876 (1988). 26. Weibel et al., "Macromolecular prodrugs IXX. Kinetics of hydrolysis of benzyl dextran carbonate ester conjugates in aqueous buffer solutions and human plasma", <i>Acta Pharm. Nord.</i> , 3(3):159-162 (1991). 27. Yang et al., <i>Chinaca Chemical Letters</i> , 38(39):6865-6868 (1997).	18.		Dittert, L.W. et al., "Acetaminophen Prodrugs II Effect of Structure and Enzyme Source on Enzymatic and Nonenzymatic Hydrolysis of	
 Pharm. Nord., 3(2):77-82 (1991). 21. Huang et al., "Hydrolysis of Carbonates, Thiocarbonates, Carbamates, and Carboxylic Esters of α-Naphthol, β-Naphthol, and p-Nitrophenol by Human, Rat, and Mouse Liver Carboxylesterases", Pharmaceutical Research, 10(5):639-648 (1993). 22. Kahns et al., "Prodrugs of Peptides. 18. Synthesis and Evaluation of Various Esters of Desmopressin (dDAVP), Pharmaceutical Research, 10(1):68-74 (1993). 23. Nassar et al., "Effects of Structural Variations on the Rates of Enzymatic and Nonenzymatic Hydrolysis of Carbonate and Carbamate Esters", Journal of Pharmaceutical Sciences, 81(3):295-298 (1992). 24. Savolainen et al., "Synthesis and in vitrolin vivo evaluation of novel oral N-alkyl- and N,N-dialkyl-carbamate esters of entacapone," Life Sciences, 67:205-216 (2000). 25. Tunek et al., "Hydrolysis of 3H-Bambuterol, A Carbamate Prodrug of Terbutaline, in Blood from Humans and Laboratory Animals In Vitro", Biochemical Pharmacology, 37(20):3867-3876 (1988). 26. Weibel et al., "Macromolecular prodrugs IXX. Kinetics of hydrolysis of benzyl dextran carbonate ester conjugates in aqueous buffer solutions and human plasma", Acta Pharm. Nord., 3(3):159-162 (1991). 27. Yang et al., Tetrahedron Letters, 38(39):6865-6868 (1997). 28. Wuldt al., Chingen Chemical Letters, 2(12):937, 940 (1991). 	Compounds: Synthesis, Stability, and E		Compounds: Synthesis, Stability, and Bioconversion", Journal of	
Carbamates, and Carboxylic Esters of α-Naphthol, β-Naphthol, and p-Nitrophenol by Human, Rat, and Mouse Liver Carboxylesterases", Pharmaceutical Research, 10(5):639-648 (1993). 22. Kahns et al., "Prodrugs of Peptides. 18. Synthesis and Evaluation of Various Esters of Desmopressin (dDAVP), Pharmaceutical Research, 10(1):68-74 (1993). 23. Nassar et al., "Effects of Structural Variations on the Rates of Enzymatic and Nonenzymatic Hydrolysis of Carbonate and Carbamate Esters", Journal of Pharmaceutical Sciences, 81(3):295-298 (1992). 24. Savolainen et al., "Synthesis and in vitrolin vivo evaluation of novel oral N-alkyl- and N,N-dialkyl-carbamate esters of entacapone," Life Sciences, 67:205-216 (2000). 25. Tunek et al., "Hydrolysis of ³ H-Bambuterol, A Carbamate Prodrug of Terbutaline, in Blood from Humans and Laboratory Animals In Vitro", Biochemical Pharmacology, 37(20):3867-3876 (1988). 26. Weibel et al., "Macromolecular prodrugs IXX. Kinetics of hydrolysis of benzyl dextran carbonate ester conjugates in aqueous buffer solutions and human plasma", Acta Pharm. Nord., 3(3):159-162 (1991). 27. Yang et al., Tetrahedron Letters, 38(39):6865-6868 (1997).	000000000000000000000000000000000000000	20.	, ,	
 22. Kahns et al., "Prodrugs of Peptides. 18. Synthesis and Evaluation of Various Esters of Desmopressin (dDAVP), Pharmaceutical Research, 10(1):68-74 (1993). 23. Nassar et al., "Effects of Structural Variations on the Rates of Enzymatic and Nonenzymatic Hydrolysis of Carbonate and Carbamate Esters", Journal of Pharmaceutical Sciences, 81(3):295-298 (1992). 24. Savolainen et al., "Synthesis and in vitrolin vivo evaluation of novel oral N-alkyl- and N,N-dialkyl-carbamate esters of entacapone," Life Sciences, 67:205-216 (2000). 25. Tunek et al., "Hydrolysis of 3H-Bambuterol, A Carbamate Prodrug of Terbutaline, in Blood from Humans and Laboratory Animals In Vitro", Biochemical Pharmacology, 37(20):3867-3876 (1988). 26. Weibel et al., "Macromolecular prodrugs IXX. Kinetics of hydrolysis of benzyl dextran carbonate ester conjugates in aqueous buffer solutions and human plasma", Acta Pharm. Nord., 3(3):159-162 (1991). 27. Yang et al., Tetrahedron Letters, 38(39):6865-6868 (1997). 	000000000000000000000000000000000000000	21.	Carbamates, and Carboxylic Esters of α -Naphthol, β -Naphthol, and p -Nitrophenol by Human, Rat, and Mouse Liver Carboxylesterases",	
Enzymatic and Nonenzymatic Hydrolysis of Carbonate and Carbamate Esters", <i>Journal of Pharmaceutical Sciences</i> , <u>81</u> (3):295-298 (1992). 24. Savolainen et al., "Synthesis and in vitrolin vivo evaluation of novel oral <i>N</i> -alkyl- and <i>N</i> , <i>N</i> -dialkyl-carbamate esters of entacapone," <i>Life Sciences</i> , <u>67</u> :205-216 (2000). 25. Tunek et al., "Hydrolysis of ³ H-Bambuterol, A Carbamate Prodrug of Terbutaline, in Blood from Humans and Laboratory Animals <i>In Vitro</i> ", <i>Biochemical Pharmacology</i> , <u>37</u> (20):3867-3876 (1988). 26. Weibel et al., "Macromolecular prodrugs IXX. Kinetics of hydrolysis of benzyl dextran carbonate ester conjugates in aqueous buffer solutions and human plasma", <i>Acta Pharm. Nord.</i> , <u>3</u> (3):159-162 (1991). 27. Yang et al., Tetrahedron Letters, <u>38</u> (39):6865-6868 (1997).	000000000000000000000000000000000000000	22.	Kahns <i>et al.</i> , "Prodrugs of Peptides. 18. Synthesis and Evaluation of Various Esters of Desmopressin (dDAVP), <i>Pharmaceutical Research</i> ,	
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26. Weibel et al., "Macromolecular prodrugs IXX. Kinetics of hydrolysis of benzyl dextran carbonate ester conjugates in aqueous buffer solutions and human plasma", Acta Pharm. Nord., 3(3):159-162 (1991). 27. Yang et al., Tetrahedron Letters, 38(39):6865-6868 (1997).	000000000000000000000000000000000000000	25.	Terbutaline, in Blood from Humans and Laboratory Animals <i>In Vitro</i> ",	
28 Vu et al. Chinese Chemical Letters, 2/12):037,040 (1001)	000000000000000000000000000000000000000		Weibel et al., "Macromolecular prodrugs IXX. Kinetics of hydrolysis of benzyl dextran carbonate ester conjugates in aqueous buffer solutions and human plasma", Acta Pharm. Nord., 3(3):159-162	
/N 28. Yu et al., Chinese Chemical Letters, 2(12):937-940 (1991).	V		Yang et al., Tetrahedron Letters, 38(39):6865-6868 (1997).	
	/N	_{_2} 8.	Yu et al., Chinese Chemical Letters, 2(12):937-940 (1991).	<u> </u>

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